

1 WHAT IS CLAIMED IS:

- 1 1. A wireless mobile communication device enclosure
2 comprising:
3 a main part and flip part joined to permit opening and closing of the
4 flip part;
5 a hinged connection joining said main part and said flip part to
6 permit said opening and closing of the flip part, said hinged connection including
7 a housing defining a cylindrical opening therein;
8 an accommodation space within the cylindrical opening;
9 a leaf spring disposed over said accommodation space, said
10 accommodation space being sufficient to permit deflection of said leaf spring;
11 a cam shaft within said housing disposed deflect said leaf
12 spring at some rotational positions of said cam shaft relative to said housing and to
13 permit said leaf spring to relax at at least two distinct rotational positions of said
14 cam shaft.
- 1 2. The wireless mobile communication device enclosure of claim 1,
2 wherein said cam shaft includes:
3 at least two flattened portions on said cam shaft ending in a common
4 ridge portion, the flattened portions and ridge being aligned with said leaf spring
5 and said accommodation space;
6 rotational positions of said cam shaft aligning said flattened portions
7 with said leaf spring permit said leaf spring to be completely undeflected; and
8 rotational positions of said cam shaft aligning said ridge with said
9 leaf spring cause deflection of said leaf spring by contact with said ridge.
- 1 3. The wireless mobile communication device enclosure of claim 2,
2 wherein said cam shaft includes a reduced diameter portion and said flattened
3 portions and said ridge are part of said reduced diameter portion.

1 4. The wireless mobile communication device enclosure of claim 3,
2 further comprising a second ridge separating said reduced diameter portion from a
3 remaining larger diameter portion of said cam shaft.

1 5. The device enclosure of claim 2, wherein said ridge is rounded.

1 6. The device enclosure of claim 5, wherein said ridge extends over
2 almost an entire length of said leaf spring.

1 7. The device enclosure of claim 2, wherein said shaft and said
2 housing are plastic.

1 8. The device enclosure of claim 1, wherein a portion of said shaft
2 extends beyond said housing to join with one of said main part and said flip part.

1 9. The device enclosure of claim 1, wherein said housing forms a
2 separate part that may be inserted into an opening of one of said main part and said
3 flip part.

1 10. The device enclosure of claim 1, wherein said accommodation
2 space comprises a recess.

1 11. The device enclosure of claim 1, wherein said cam shaft
2 includes a ridge to contact and deflect said leaf spring.

1 12. A wireless mobile communication device enclosure:
2 a main part and flip part joined to permit opening and closing of said
3 flip part;

4 a hinged connection joining said main part and said flip part to
5 permit said opening and closing of said flip part, said hinged connection including,
6 a housing defining a cylindrical opening therein;
7 a shaft closely accommodated with said housing;
8 a leaf spring between said housing and said shaft, wherein at least a
9 portion of said shaft is configured to deflect said leaf spring at a first relative
10 rotational position of said shaft and said housing, and to allow said leaf spring to
11 relax at two additional relative rotational positions of said shaft and said housing.

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1 13. The wireless mobile communication device enclosure according
2 to claim 12, wherein said housing includes a recess for permitting said leaf spring
3 to deflect, and a shelf formed around a circumference of said recess to hold said
4 leaf spring in place.

1 14. The wireless mobile communication device enclosure according
2 to claim 12, wherein said shaft includes a ridge to contact and deflect said leaf
3 spring.

1 15. The wireless mobile communication device enclosure according
2 to claim 14, wherein said ridge extends over the entire length of said leaf spring.

1 16. The wireless mobile communication device enclosure according
2 to claim 12, wherein a portion of said shaft extends beyond said housing to
3 connect with one of said main part or said flip part.

1 17. A wireless mobile communication device enclosure,
2 comprising:

3 a main part;
4 a flip part;

5 a hinge part rotatably connecting said main part and said flip part,
6 said hinge part comprising a housing rotatably accommodating a shaft over a leaf
7 spring, the shaft being configured to deflect the leaf spring at least one
8 predetermined rotational position and leave the leaf spring less deflected at other
9 another predetermined rotational position.

1 18. The enclosure according to claim 17, wherein said shaft is
2 configured to leave the leaf spring completely undeflected at said another
3 predetermined rotational position.

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